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U. S. DEPARTMENT OF AGRICULTURE

Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL BRANCH

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL BRANCH

PLANT PEST SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

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Plant Pest Survey Section
Plant Pest Control Branch
Agricultural Research Service
United States Department of Agriculture
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Volume 6 September 7, 1956 Number 36

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

GRASSHOPPERS serious on grazing lands in Santa Cruz County, Arizona. Idaho, Oklahoma, Kansas and North Dakota also report infestations of concern. (p. 887).

SPOTTED ALFALFA APHID reported from South Dakota for first time. Damage continues in Utah. Heavy populations in some Louisiana parishes and local areas of Kansas. (p. 889). Map showing spread of this pest in United States. (p. 890).

PEACH TWIG BORER damage unusually severe in some areas of Washington. (p. 892).

MEDITERRANEAN FRUIT FLY reported from Osceola County, Florida. (p. 892).

Survey shows BEET LEAFHOPPER and curly top at low incidence in southern Great Plains and adjacent areas. (p. 894).

BOLLWORMS continue damage in cotton in California, New Mexico and several other States. (p. 895).

SPIDER MITES still serious on cotton in California. (p. 896).

Several cases of ENCEPHALITIS reported from Washington. Additional case in Rhode Island. (p. 897).

ADDITIONAL NOTES (p. 900).

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Reports in this issue are for the week ending August 31, 1956 unless otherwise designated.

WEATHER BUREAU'S 30 DAY OUTLOOK SEPTEMBER 1956

The Weather Bureau's 30-day outlook for September 1956 calls for temperatures to average below seasonal normals west of the Continental Divide and in the Great Lakes region. Above normal temperatures are predicted for the East Coast and Southern Plains, with near normal elsewhere. Precipitation is expected to exceed normal in most of the northern third of the nation. Subnormal amounts are indicated in the southwestern quarter of the country and in the South Atlantic States. Elsewhere near normal rainfall is anticipated.

Weather forecast given here is based on the official 30-day "Resume and Outlook", published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price $4.80 a year, $2.40 for six months.

WEATHER FOR THE WEEK ENDING SEPTEMBER 3, 1956

Snowfall in Cutbank, Montana, a tornado in Fargo, North Dakota, excessive rains and local flooding in Syracuse, New York, freezing temperatures in the northern Great Plains and Rockies, blowing dust in northwestern Oklahoma and severe hail storms in Minnesota, Wyoming and North Dakota were all features of the weather this week. The general pattern leading to these events was one of low pressure troughs and frontal systems expanding southwestward and eastward from the Great Lakes region with cold polar air prevailing to the Northwest and extreme Northeast. Moist tropical air covered the Southeast penetrating well into the central portion of the country during most of the period.

Weekly temperatures generally averaged above normal east of lines joining North Platte, Nebraska with El Paso, Texas and Pembina, North Dakota with departures from normal of +6° or more reported in areas of Texas, Michigan and along the central Atlantic coast. Temperatures west of these lines averaged below normal under the influence of two unseasonably cold air masses. Greatest minus temperatures in this area averaged 6° or more. Morning temperature at Fraser, Colorado reached 15° on two consecutive days, August 31 and September 1. Also on September 1 a record low for so early in the season was reported at North Platte, Nebraska. Minima of freezing or below occurred at numerous mountain stations in the northwest on September 4 while at lower elevations Tioga and Beech, North Dakota, recorded lows of 26° and 28° respectively. Precipitation totals for the week were generally moderate to heavy in the Mississippi Valley, in the Great Lakes region westward along the Canadian Border through Montana, in the Ohio Valley and eastward to western New England, in the southern Appalachians and Atlantic Coastal area and from Galveston, Texas eastward along the Gulf Coast while in the central and southern Plains States and from the Continental Divide westward dry conditions continued. Some of the greatest weekly amounts reported were 6.35 inches in Syracuse, (Weather continued on p. 900).

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - ARIZONA - Grasshoppers, including Boopedon nubilum, Brachystola magna, Melanoplus lakinus, M. regalis and Morseiella flaviventris, seriously damaging natural grazing areas in Santa Cruz County. Control planned on 70,000 acres of this general infestation.(ACR). IDAHO - Very severe infestation near Riggins, Idaho County, over 100 per square yard in many spots. Complete defoliation of weeds. (Barr). OKLAHOMA - Continue to cause marginal damage to sorghums, soybeans, corn, cotton,truck crop and legumes. (Coppock). KANSAS - Light to threatening populations in a few local areas of northwestern Kansas; 5-15 per square yard which is lower than last year at this time. Dominant species is M. mexicanus. Non-economic to threatening populations in 7 southwest counties. Populations confined to roadside margins along ground prepared for fall wheat plantings. (Matthew). NORTH DAKOTA - Continue to damage flax in unsprayed fields where populations high. Damaging pods of soybeans in eastern area. (N. D. Ins. Rept.).

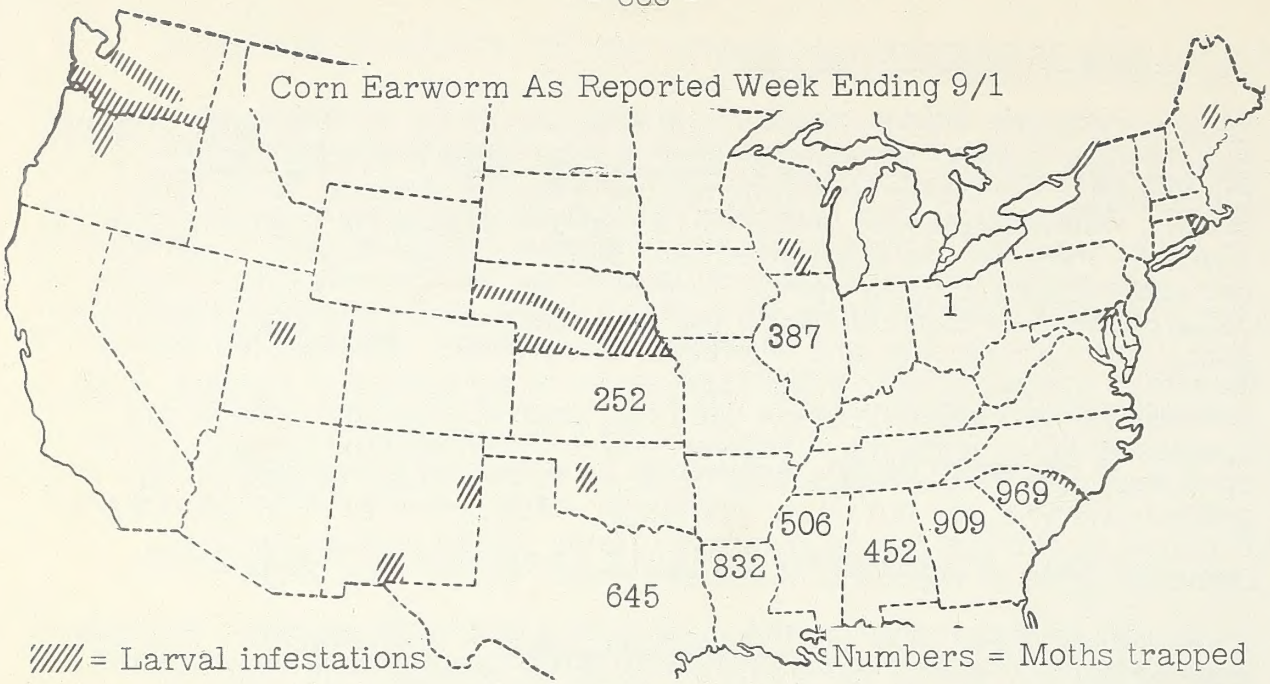
EUROPEAN CORN BORER (Pyrausta nubilalis) - MARYLAND - Two egg masses per 100 plants and 9 percent stalk infestation in 16 fields in Frederick County. Eight percent stalk infestation in 16 fields in Cecil County. (U. Md., Ent. Dept.). ALABAMA - Heavy flights of second-generation moths in northern area. Oviposition primarily on grain sorghum and pimiento peppers. (Eden). Found in Winston County for first time, light in 3 fields. (Tyus). MISSISSIPPI - Larvae collected from corn in following counties: Benton, Bolivar, Itawamba, Lafayette, Monroe, Prentiss, Sharkey, Sunflower, Tippah, Tishomingo and Washington. (Ingram).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - LOUISIANA - Found in 4 fields in Caddo Parish and 2 in Bossier Parish, 20-60 percent of stalks infested. (Oliver). NEW MEXICO - Moderate damage to field corn in Quay County. (Durkin, Aug. 25).

CHINCH BUG (Blissus leucopterus) - NORTH CAROLINA - Severe infestation on St. Augustine grass in New Hanover County. (Spink). OKLAHOMA - Twenty per sorghum plant in one field in Comanche County, lighter in rest of southwestern area. (Coppock).

MORMON CRICKET (Anabrus simplex) - Total of 58,280 acres in 5 States baited for control of Mormon cricket this year. Acreage by State: Colorado 2,464, Idaho 4,158, Nevada 9,374, Utah 35,064, Wyoming 7,220. (GHC Proj.).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - NEBRASKA - Adults still prevalent in alfalfa in Platte and Republican Valleys. Larvae average 5 per sweep in these areas. (Andersen). ARIZONA - One to 3 per sweep in some alfalfa fields near Yuma, August 29. (Ariz. Coop. Rept). NEW MEXICO - Moth numerous in alfalfa, one damaging larval infestation in Eddy County. (Durkin, Aug. 25).



CORN EARWORM (Heliothis zea) - MAINE - Moderate infestation at Monmouth August 23, larvae about one-half grown. (Hawkins). RHODE ISLAND - Larvae leaving corn ears. (Steve). MARYLAND - Thirteen percent of sweet corn infested in 14 fields in Cecil County. (U. Md., Ent. Dept.). SOUTH CAROLINA - This species and other caterpillars damaging soybeans in area from Bennettsville to coast. (Nettles). OKLAHOMA - Several larvae per plant in isolated fields of peanuts in Caddo County, eggs numerous. Defoliation slight. (Coppock). NEBRASKA - Adults very abundant in alfalfa in southeastern area. Approximately 95 percent of corn plants have 1-2 larvae in ears in this area. Approximately 80-90 percent of ears in Republican and Platte Valleys show larval damage. (Roselle, Andersen). UTAH - Decreasing in canning corn in Utah County. (Dorst, Knowlton). NEW MEXICO - Moderate to heavy damage to field corn in Quay and Dona Ana Counties. (Durkin, Aug. 25). OREGON - Infestations averaged 10-15 percent in Willamette Valley, August 26. (Capizzi). WASHINGTON - Larvae still prevalent but scattered in Columbia Basin and Yakima Valley. (Kamal).

SOUTHERN CORNSTALK BORER (Diatraea crambidoides) - MISSISSIPPI Found in stalks of corn in Chickasaw and Tippah Counties, August 28. (Douglas, Henderson).

ALFALFA WEBWORM (Loxostege commixtalis) - NEBRASKA - Adults very abundant in most alfalfa in Republican and Platte Valleys. Four to 5 larvae per sweep. (Andersen).

FALL ARMYWORM (Laphygma frugiperda) - MAINE - Infesting about 15 percent of corn at Winslow August 15. (Hawkins). ALABAMA - Infesting grain sorghum, grasses and peanuts in various sections. (Arant). GEORGIA - Light on soybeans and velvetbeans in Bryan County. (Medders). LOUISIANA - Infestations statewide, 250 larvae per 100 sweeps in alfalfa

in Caddo Parish, 60 per 100 in Bossier Parish and generally light on grass over State. (Oliver).

CRICKETS - NORTH DAKOTA - Field crickets numerous and causing damage in scattered flax fields in eastern and central areas. (N. D. Ins. Rept.).

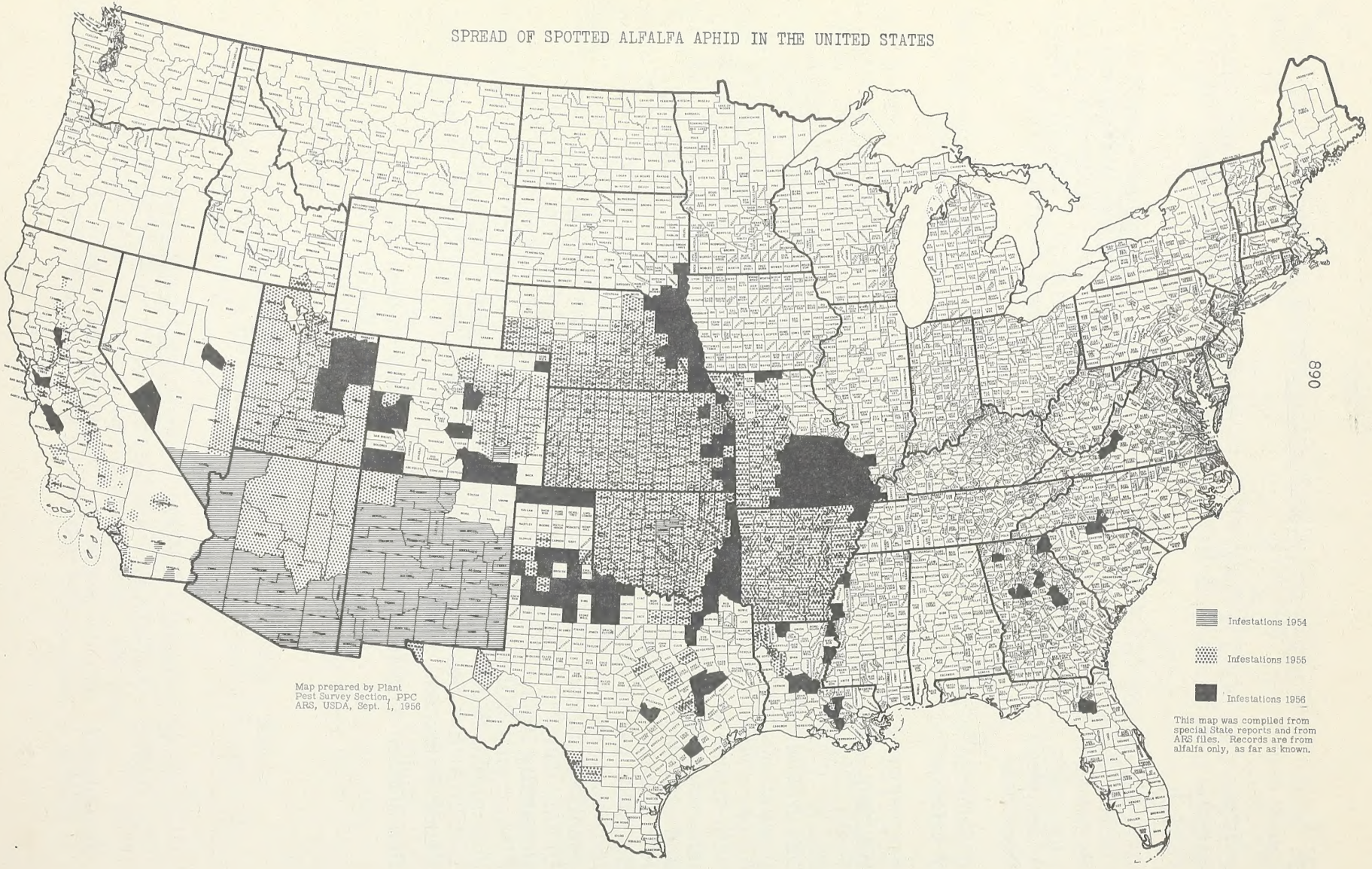
LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - SOUTH CAROLINA - Heavy infestation in 500 acres of cowpeas and soybeans in Barnwell County, August 23. (Shelley). GEORGIA - Moderate to heavy infestation in cowpeas in Gwinnett County. (Shirley). TEXAS - Heavy widespread on peanuts, hegari and some grasses in Erath County. (Sanchez).

EUROPEAN EARWIG (Forficula auricularia) - IDAHO - Numerous reports of infestation in ears of sweet corn in Moscow area. (Manis).

SPOTTED ALFALFA APHID - NEW MEXICO - Light over most of State. (Durkin, Aug. 25). COLORADO - Aphids per 100 sweeps by county: La Plata 120, Montezuma 300, Montrose 40, Delta 50, Mesa 2500. (Exp. Sta.). UTAH - Continues damaging in many counties. (Knowlton). OKLAHOMA - Remains non-economic in dryland alfalfa over State. Higher populations continue in most irrigated fields in southern area, up to 65 per sweep in one Jackson County field. Predators increasing in fields with higher aphid populations. (Coppock). KANSAS - Infestation from non-economic to heavy in alfalfa in 9 northwest counties and 6 west central and southwest counties. Light to moderate in 4 central counties. The local heavy infestations were widely scattered in western third of State. Situation varies between fields. Aphid counts from 4 to 800 per sweep, lady beetles 0-15 per sweep, lacewings 0-8. Light infestation on alfalfa seedlings in Rawlins County. (Matthew). SOUTH DAKOTA - Found in Union, Clay, Yankton, Lincoln and Minnehaha Counties August 27. Generally light, up to 5 per sweep. This is first report for State. (Walstrom, Billman, Lofgren). NEBRASKA - No increase in Republican and middle Platte Valley areas, 1-8 per sweep. (Andersen). LOUISIANA - Heavy populations continue in Natchitoches, Bossier and Caddo Parishes. (Oliver).

See Spotted Alfalfa Aphid distribution map on next page.

SPREAD OF SPOTTED ALFALFA APHID IN THE UNITED STATES



Map prepared by Plant
Pest Survey Section, PPC
ARS, USDA, Sept. 1, 1956

This map was compiled from special State reports and from ARS files. Records are from alfalfa only, as far as known.

PEA APHID(Macrosiphum pisi) - COLORADO - Damaging numbers in Saguache and Rio Grande Counties. (Ext. Serv.). UTAH - Continues injurious in many counties. Infestation has persisted much longer than normal on alfalfa. (Knowlton). NEBRASKA - Between 150-235 per sweep in alfalfa in Republican and Platte Valley areas. (Andersen).

BLISTER BEETLES - NEBRASKA - Epicauta spp. counts remain high in most alfalfa in Republican and Platte Valleys. Ten to 12 E. pennsylvanica and Epicauta sp. per 10 sweeps. E. cinerea ranges from 10-20 per 10 sweeps in panhandle and north central counties. (Andersen, Fitchett).

A STINK BUG (Euschistus impictiventris) - ARIZONA - One per sweep in some alfalfa seed fields near Yuma. (Ariz. Coop. Rept.).

PLANT BUGS - UTAH - Continue abundant over much of State. (Knowlton). NEBRASKA - Lygus lineolaris increasing in alfalfa seed fields, 4-6 per sweep in Republican Valley area. Adelphocoris lineolatus ranges from 4-9 per sweep in alfalfa in Platte and Republican Valleys. (Andersen). KANSAS - About 1 A. lineolatus and 1 L. lineolaris per sweep in alfalfa in Riley County. (Franklin). One to 4 A. lineolatus per sweep in northwest counties. (Matthew). ARIZONA - From 200-850 Lygus sp. per 100 sweeps in untreated alfalfa in Yuma area. (Ariz. Coop. Rept.).

FALSE CHINCH BUGS (Nysius sp.) - NEW MEXICO - Numerous in sorghum fields in Hidalgo, Curry and Quay Counties. (Durkin, Aug. 25).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - LOUISIANA - Found on soybeans as far north as Alexandria in Rapides Parish. Moderate on soybeans in south central area. (Oliver).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - UTAH - Abundant in some Washington and Kane County alfalfa. (Knowlton). LOUISIANA - Continues to build up in alfalfa, and soybeans over State with 60-250 per 100 sweeps common. (Oliver). TEXAS - Heavy local populations on alfalfa in Culberson County. (Garner).

SPIDER MITES - COLORADO - Considerable controls against Tetranychus telarius on corn in Larimer and Weld Counties. (Colo. Aer. Applicators). UTAH - Damaging corn in many fields in northern area. (Knowlton).

LESPEDEZA WEBWORM (Tetralopha scortealis) - SOUTH CAROLINA - Serious damage to sericea lespedeza for seed in Chesterfield County. (Nettles).

FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - OHIO - Infestations in commercial orchards very light. (Cutright). WASHINGTON - Active in many orchards. (Yakima Spray Bul.).

ORCHARD MITES - UTAH - Severely damaging Weber and Salt Lake

County orchards and scattered orchards in other areas. (Knowlton). OHIO - Infestations of Metatetranychus ulmi declining but serious damage in several orchards. (Cutright). NEW MEXICO - Tetranychus telarius building up on apples in Lincoln County and damaging orchards in Sandoval and Rio Arriba Counties. (Durkin, Aug. 25).

PEAR LEAF BLISTER MITE (Eriophyes pyri) - WASHINGTON - Extremely abundant on backyard apple trees near Pullman and vicinity. (Telford, Kamal).

PEAR-SLUG (Caliroa cerasi) - COLORADO - Severe damage to sour cherry in Larimer County. (Exp. Sta.).

WOOLLY APPLE APHID (Eriosoma lanigerum) - WASHINGTON - Build-up causing concern about control. (Yakima Spray Bul.).

PEACH TWIG BORER (Anarsia lineatella) - WASHINGTON - Worst damage in past nine years in peach orchards in Crescent Bar and Wenatchee areas. (Anthon).

CATFACING INSECTS - OHIO - Many second-generation eggs deposited by Euschistus tristigmus and a few by E. servus and E. variolarius. (Rings).

TERMITES - OKLAHOMA - Attacking roots of young pecan trees in an orchard in Oklahoma County. (Bower).

FALL WEBWORM (Hyphantria cunea) - OREGON - Unusually large numbers in cherry, filbert and walnut orchards in Willamette Valley. Reaching maturity Aug. 27. (Capizzi).

BLACK PECAN APHID (Melanocallis caryaefoliae) - FLORIDA - Nymphs and adults averaging 28-43 per leaf on 100 leaves inspected of pecans at Monticello, Jefferson County, Aug. 21. (Phillips).

THRIPS - ARIZONA - Causing considerable leaf distortion in some plantings of young citrus trees at Yuma. (Ariz. Coop. Rept.).

LEAFHOPPERS - MARYLAND - Injuring grapes at Salisbury, Aug. 30. (U. Md., Ent. Dept.). NEW MEXICO - Erythroneura sp. damaging grapes in Dona Ana, Eddy and De Baca Counties. (Durkin, Aug. 25).

MEDITERRANEAN FRUIT FLY (Ceratitis capitata) - FLORIDA - Infestations found in Osceola County. Three specimens trapped near Kissimmee August 23 and one August 24. (PPC). TEXAS - Trapping program underway in lower Rio Grande Valley with 104 traps set out on 96 properties in and near Brownsville. No specimens trapped by mid-August. (PPC).

TRUCK CROP INSECTS

STALK BORER (Papaipema nebris) - RHODE ISLAND - Margins of most potato fields examined, heavily infested with pupation at peak. (Steve).

POTATO PSYLLID (Paratrioza cockerelli) - COLORADO - Populations still high on buffalo burr, matrimony vine, ground cherry and bindweed. Potatoes yielding 300-400 sacks per acre when this pest properly controlled. (Exp. Sta.).

WESTERN YELLOW-STRIPED ARMYWORM (Prodenia praefica) - IDAHO Prodenia sp. referred to in CEIR 6(34):851 as damaging sugar beets and potatoes was P. praefica. (Manis).

POTATO FLEA BEETLE (Epitrix cucumeris) - MAINE - Only trace numbers of summer generation adults in Presque Isle area. (Shands).

GREEN PEACH APHID (Myzus persicae) - OREGON - High populations in many potato fields in Klamath Falls area. (Capizzi).

APHIDS - MAINE - Populations in commercial potato fields in Presque Isle area very low. Species were Aphis abbreviata, Macrosiphum solanifolii, Myzus persicae and M. solani. (Shands).

TOMATO FRUITWORM (Heliothis zea) - COLORADO - Reached 2.4 eggs per 100 tomato leaves in Prowers, Las Animas, Bent, Otero and Pueblo Counties compared with .6 per 100 leaves for the same period in 1955. About 10 days ahead of 1955 in development. (Exp. Sta.). ARIZONA - Damaging 20 acres of lettuce near Bowie, Cochise County Aug. 30. (Ariz. Coop. Rept.).

HORNWORMS (Protoparce spp.) - RHODE ISLAND - Damage increasing on tomatoes. (Steve). NEW MEXICO - With Heliothis zea, causing light to moderate damage to 300 acres of tomatoes in Luna County. (Durkin, Aug. 25).

FIELD CRICKET (Acheta assimilis) - FLORIDA - Adults heavily infesting fields to be planted to tomatoes and other crops in Homestead area, Dade County. Det. D. O. Wolfenbarger. (Denmark).

A LEAF MINER (Liriomyza sp.) - ARIZONA - Decreasing but heavily mining bean cotyledons in one field at Bowie, Cochise County, Aug. 23. (Ariz. Coop. Rept.). NEW MEXICO - Infesting seedling lettuce in Dona Ana County. (Durkin, Aug. 25).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - MISSISSIPPI - Infesting small bean plants in Marshall County. (Hutchins).

MEXICAN BEAN BEETLE (Epilachna varivestis) - COLORADO - Many fields severely damaged but many show excellent control. (Exp. Sta.). UTAH - Caused considerable damage in infested areas of State. (Knowlton).

SQUASH BUG (Anasa tristis) - RHODE ISLAND - Nymphs in large numbers on untreated squash plantings throughout State. Greatest damage expected later. (Steve).

MELON FLY (Dacus cucurbitae) - CALIFORNIA - To August 18, in Los Angeles County, 2658 traps had been placed with about 350 additional being placed daily. No additional flies have been trapped. (Cal. Coop. Rept., Aug. 24).

CUCUMBER BEETLES - NORTH CAROLINA - Diabrotica undecimpunctata howardi and Acalymma vittata infestations heavy on cucumbers in Duplin County. (Reid).

IMPORTED CABBAGEWORM (Pieris rapae) - NORTH DAKOTA - Adults more numerous this season than in several years. (N. D. Ins. Rept.).

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Damaging 80 acres of cabbage at Deer Valley, Aug. 29 and 20 acres of lettuce at Bowie, Cochise County, Aug. 23. (Ariz. Coop. Rept.). NEW MEXICO - Damaging seedling stands of lettuce in Dona Ana County. (Durkin, Aug. 25).

SUGAR BEET ROOT MAGGOT (Tetanops myopaeformis) - COLORADO - Losses of stands significant in Larimer and Weld Counties. (Exp. Sta.).

General Statement on Beet-Leafhopper and Curly-Top Conditions in the Southern Great Plains and Adjacent Areas

Both the beet-leafhopper population and curly top, a virus disease transmitted by this insect, are generally very low and widely distributed over the southern Great Plains and adjacent areas. Kochia and Russian-thistle, the principal summer weed hosts of this leafhopper in the above areas, are abundant on idle and waste lands from the Edwards Plateau of Texas north to the Platte River Valley of western Nebraska and westward to the Rocky Mountains. The incidence of curly top, as well as the grade of severity on red and sugar beets, Swiss chard, and tomatoes wherever found, was very low from Crystal City, Texas; northward through Lubbock Texas; Garden City, Kansas; and North Platte, Nebraska; westward to Fort Collins, Colorado; south through Pueblo, Colorado; Las Vegas and Roswell, New Mexico; in the Estancia Valley of New Mexico; and in the San Luis Valley of Colorado. The low incidence of curly top the latter part of August in the above areas substantiates the findings made in February and March and published in the June 22, 1956 issue of the Cooperative Economic Insect Report, Vol. 6, No. 25 page 584. (Douglass, Cowger, and Thrailkill).

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - OKLAHOMA - Square infestation on irrigated cotton 5-16 percent in Tillman County, 7-25 in Jackson County. Some boll punctures. (Coppock). ARKANSAS - Dry weather reduced infestations last August. Recent rains, however, will result in high levels of infestation in early fall. (Warren, Harrendorf, Barnes). LOUISIANA - Many fields have quit fruiting and accurate infestation counts difficult to obtain. Counts in younger cotton were 40 percent in one field in Tensas Parish, 66 in 3 in Ouachita Parish. (Oliver). Average infestation in 34 fields in Tallulah area was 51 percent. Weevils moving into fields still fruiting. (Pfrimmer). TENNESSEE - Heavy infestations of adults in low land fields, considerable damage to bolls. (Locke). SOUTH CAROLINA - Population still high enough to justify controls in mountain area. (Nettles).

BOLLWORMS (Heliothis spp. et al.) - CALIFORNIA - Economic levels general over most of San Joaquin Valley, 1-6 per 100 plants. New hatch developing south of Bakersfield, up to 12-15 per 100 plants not uncommon. Although predator activity remains high, bollworm populations are heavy and require close attention. Moth activity increased markedly in Imperial Valley. (Cal. Coop. Rept., Aug. 23). ARIZONA - Increasing to 28 per 100 plants in Eloy area of Pinal County August 23. Three to 20 per 100 plants at Buckeye and Perryville, Maricopa County, August 24. (Ariz. Coop. Rept.). NEW MEXICO - Increasing in Dona Ana County, moderate to heavy damage in several fields. Bollworms general in cotton in Eddy and Chaves Counties. (Durkin, August 25). OKLAHOMA - Egg depositions still increasing in many irrigated fields in southwestern area, 18-94 percent of terminals had eggs. Damage to young bolls and squares from 3-32 percent. (Coppock). ARKANSAS - Moth flight increasing. (Warren, Harrendorf, Barnes). LOUISIANA - Continue to threaten some cotton in Tensas, Ouachita and Bossier Parishes. (Oliver). Eggs in 38 fields in Tallulah area at rate of 6.6 per 100 terminals and larvae at rate of 3.1 per 100 terminals. (Pfrimmer et al.). TENNESSEE - Still increasing in weevil-infested areas. (Locke). SOUTH CAROLINA - Damage increasing in Calhoun, Lancaster and Spartanburg Counties. (Cott. Lett.).

CABBAGE LOOPER (Trichoplusia ni) - CALIFORNIA - Large populations in many fields in Imperial Valley. Little or no serious damage but treatment may be necessary in some cases in order to prevent too-early defoliation. (Cal. Coop. Rept., Aug. 23). ARIZONA - Severe in several fields near Eloy. Disease killing many large caterpillars. Populations increasing in Maricopa, Pima and Pinal Counties, August 24. (Ariz. Coop. Rept.). NEW MEXICO - Spotty, a few fields moderately damaged. (Durkin, Aug. 25). OKLAHOMA - Abundant in isolated fields in Tillman and Jackson Counties. One field had 8 per plant. (Coppock). LOUISIANA - Beginning to infest cotton fields in northern area, some defoliation in a few fields. (Oliver).

PINK BOLLWORM (Pectinophora gossypiella) - OKLAHOMA - Gin stand inspections in Bryan, Caddo, Kiowa and Marshall Counties negative;

however, following ginning of first bale of cotton at Terral, a handful of motes revealed 8 pink bollworms. (Senette).

SALT-MARSH CATERPILLAR (Estigmene acrea) - CALIFORNIA - Many newly-hatched larvae on cotton in most areas of Imperial Valley. (Cal. Coop. Rept., Aug. 23). ARIZONA - Increasing in Maricopa County but damage remains light, August 24. Continued increase expected into September at Yuma. (Ariz. Coop. Rept.).

APHIDS - ARKANSAS - Infestations have increased. (Warren, Harrendorf Barnes). OKLAHOMA - Common in some fields in southwestern counties. (Coppock). CALIFORNIA - Aphis gossypii in near-economic numbers in areas of Kern County. (Cal. Coop. Rept., Aug. 23). ARIZONA - A. gossypii particularly heavy on pima cotton near Bowie, Cochise County, August 23. (Ariz. Coop. Rept.).

LYGUS BUGS - ARIZONA - Continues to decline in Maricopa County but still problem in some areas of Pima County August 24. Twenty per 100 sweeps on 400 acres at Eden, Cochise County. (Ariz. Coop. Rept.). NEW MEXICO - Lygus elisus and L. hesperus damaging cotton in most areas. Heavy in Dona Ana County. (Durkin, Aug. 25).

COTTON LEAF PERFORATOR (Bucculatrix thurberiella) - CALIFORNIA Still not too serious in most spring-planted cotton in Imperial Valley. (Cal. Coop. Rept., Aug. 23). ARIZONA - Light to severe in Eloy area, Pinal County. Portion of some fields completely defoliated. Increasing in Maricopa and Pima Counties, August 24. (Ariz. Coop. Rept.).

SPIDER MITES - CALIFORNIA - Continue serious problem, especially in untreated cotton. (Cal. Coop. Rept., Aug. 23). ARIZONA - Appearing in Bowie area, Cochise County, in light spotty infestation, August 23. (Ariz. Coop Rept.). TENNESSEE - Still increasing in weevil-infested areas and causing complete defoliation in spots within fields. Continued increase expected. (Locke). OKLAHOMA - Abundant in many fields in Jackson County, up to 25 per leaf. (Coppock). SOUTH CAROLINA - Increasing in all sections. (Cott. Lett.).

LEAFWORMS - OKLAHOMA - Present in many southwestern fields but generally low. (Coppock). NEW MEXICO - Alabama argillacea infestations spotty with some fields heavily infested in Dona Ana, Eddy and Chaves Counties. (Durkin, Aug. 25).

INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - RHODE ISLAND - A report of death of workhorse at Coventry. Second case involving horses. Mosquitoes continue to annoy residents of Davisville, Matunuck and Point Judith. (Steve). UTAH - Culex tarsalis most prevalent species. During August, 3800 acres were spray by air, 1500 acres by ground equipment and 3500 gallons of insecticides fogged on. Some scattered areas of annoyance now. (Fronk, Knowlton). NORTH CAROLINA - Aedes sollicitans numerous in Dare County. (Cromroy). WASHINGTON - A number of cases of encephalomyelitis of horses and a few cases of encephalitis of humans reported during August. Possibly borne by mosquitoes. (Telford).

CATTLE GRUBS - OKLAHOMA - Heel flies annoying cattle in Pushmataha County. (Goin).

HORN FLY (Siphona irritans) - OKLAHOMA - Averaged 800 per cow in large herd of dairy cattle in Okfuskee County. (Coppock).

TABANIDS (Tabanus spp.) - RHODE ISLAND - Still annoying cattle in Richmond area. Numbers decreasing, 2-5 per animal in five minute period. (Steve).

TICKS - SOUTH CAROLINA - Heavy infestations in and about houses in West Columbia. (Nettles). ARIZONA - BROWN DOG TICK (Rhipicephalus sanguineus) - Infesting some homes on the Yuma Mesa. (Ariz. Coop. Rept.).

STORED PRODUCTS INSECTS

KHAPRA BEETLE (Trogoderma granarium) - CALIFORNIA - No new infestation found week ending Aug. 17 in Fresno, Kings, Merced and Tulare County. Two properties fumigated in Imperial Valley. (Cal. Coop. Rept.).

RUSTY GRAIN BEETLE (Laemophloeus ferrugineus) - WASHINGTON - Three specimens collected in wheat field by threshing crew. (Bishop).

MISCELLANEOUS INSECTS

CRICKETS - ARIZONA - Causing annoyance in homes in Yuma, Aug. 29. (Ariz. Coop. Rept.).

ASIATIC OAK WEEVIL (Cyrtepistomus castaneus) - WEST VIRGINIA - Causing annoyance by entering houses in Charleston area, Aug. 14. (Dorsey, Hansen).

YELLOW JACKETS - RHODE ISLAND - Unusually high number of complaints from Smithfield and Cranston areas. (Mathewson).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

RED-HEADED PINE SAWFLY (Neodiprion lecontei) - WEST VRIGINIA - Moderate injury in Christmas tree plantations of red, Scotch and Austrian pines in Randolph County. (Dorsey, Hansen).

A PINE TIP MOTH (Rhyacionia sp.) - NORTH CAROLINA - Heavily infesting young pine seedlings at Faison, Duplin County. (Mitchell).

BAGWORMS - OKLAHOMA - Very abundant on evergreens in Tahlequah. (Campbell).

FOREST INSECT SITUATION, SOUTH CENTRAL U. S.
Widely scattered infestations of SOUTHERN PINE BEETLE in pines several areas of ALABAMA. Active on the Talladega and Bankhead National Forests. Situation improved over conditions in June. BLACK TURPENTINE BEETLE increasingly destructive most sections of South. Infestations in scattered trees and small groups of trees general and increasing on private lands in central and southwestern ARKANSAS, east TEXAS, LOUISIANA and MISSISSIPPI. Many small control projects in progress. IPS BEETLES increased in activity in east TEXAS and ARKANSAS. Ips avulsus triggering attacks of SOUTHERN PINE BEETLE in ALABAMA by attacking crown and uppers stems of pines. A COLASPIS (Colaspis pini) browned foliage of pines in southern LOUISIANA and southeastern TEXAS. A CONE MOTH (Dioryctria amatella) caused flagging of branch tips of mature longleaf pines in TEXAS and LOUISIANA, last of June. FALL WEBWORM attacking mulberry, persimmon, pecans, gums and other hardwoods in eastern TEXAS, LOUISANA, MISSISSIPPI and east central OKLAHOMA. Lighter defoliation in ARKANSAS and ALABAMA. (Southern For. Pest Reptr., Aug. 24).

LACE BUGS - OKLAHOMA - Heavy infestation on sycamore and elm trees in Tulsa. (Pinkston).

A HELIOSELID (Coptodisca n. sp.) - ARIZONA - Severely perforating leaves and causing leaf-shed on cottonwood trees in Maricopa and Yuma Counties, Aug. 27. A new species. Det. H. W. Capps and J. F.G. Clarke. (Ariz. Coop. Rept.).

A WEEVIL (Brachyrhinus sp.) - WASHINGTON - Adults heavily damaging young shoots of lilac at Pullman. (Telford, Kamal).

AZALEA LACE BUG (Stephanitis pyriodes) - WEST VIRGINIA - Severe infestations of azaleas in Marion County. (Dorsey, Hansen).

GRASSHOPPERS - OKLAHOMA - Defoliating ornamentals and nursery stock in Cherokee County. (Campbell).

AN ERIOPHYID MITE (probably Eriophyes loewi) - WASHINGTON - Very abundant and causing considerable bronzing of lilac leaves at Pullman. (Telford, Kamal.

	Pseud. unipun.	Agrotis ypsilon	Prod. ornith.	Perid. marg.	Feltia subt.	Heliothis zea	Heliothis vires.	Protoparce sexta	Protoparce quinq.	Laphyg. frugip.
KANSAS										
Hays 8/18-24	7	23	1			3				
Manhattan 8/28-30	7	13				252		8	1	
Garden City 8/23-29	13	116				194			2	
Goodland 8/29	1	5				16				
OHIO (County)										
Athens 8/20-26	2	3				1				
ILLINOIS										
Urbana 8/24-30	52	21	21	22		387		18		22
NORTH CAROLINA (Counties)										
Duplin 8/27-31									35 spp.	
Johnston									14 spp.	
SOUTH CAROLINA (Counties)										
Charleston 8/13-19	22	1	49	1	35	231	2	13	1	115
Florence 8/18-24	163	30	163	2	163	969	15	54	1	57
Oconee 8/18-24	38	19	43		3	66	1	10		4
GEORGIA (Counties)										
Tift 8/24-30	106	11	17		28	269	25	69	5	67
Spalding 8/24-30	19	36	8		5	909		21	2	6
Clarke 8/23-29	13	16				11	3	16	1	
FLORIDA										
Gainesville 8/1&9			13			87		6		
Quincy 8/20	2				6	21		7		
Sanford 8/23						2				
ALABAMA (County)										
Lee 8/25-31	140		82			452	23	27	8	169
MISSISSIPPI (Counties)										
Humphrey (8/25-31)	30	5	39		26	506	18			2
Lauderdale	9	3			60	42				1
Marshall	79	13	12		14	420	9			
Oktibbeha	113	39	30		18	282	12			11
LOUISIANA										
*Tallulah 8/23, 25, 27	56	16	62	2	49	345	27	25		46
Curtis 8/20-26	128	3		1	10	832		4		
Baton Rouge 8/28	13	1	10		6	59		1		11
TEXAS										
Waco 8/25-31	37	2	13	3	10	645	7			
College Sta. 8/16-31	158	10	26	1		401	2			433
WISCONSIN										
DeForest 8/21-28	68					93				

*Three traps Tallulah

OTHER COLLECTIONS: VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - SOUTH CAROLINA

(Charleston, 8/13-19)- 16; FLORIDA (Gainesville, 8/9)- 3; (Quincy, 8/20)- 4.

BENEFICIAL INSECTS

KLAMATHWEED BEETLES (Chrysolina spp.) - IDAHO - A few specimens of C. gemellata emerging in Rathdrum Prairie area. No C. hyperici. (Barr).

ADDITIONAL NOTES

WISCONSIN - CORN EARWORM damage beginning on canning sweet corn, 3-4% -4 infested ears in Dane County and averaging 110 eggs per 100 ears in Rock County, Aug. 28. EUROPEAN CORN BORER second brood over 90 percent hatched in Rock County. Hatch is about a week later at DeForest and expected to extend into September further north. WALNUT CATERPILLAR defoliating walnuts in Dane County. RED-LEGGED GRASSHOPPER damaging margins of corn fields in Dane County. Damaging alfalfa heavily in LaCrosse and Lafayette Counties. DIFFERENTIAL GRASSHOPPER heavier this year than in 1955. BLACK BLISTER BEETLE heavy in alfalfa in Dane County. NORTHERN CORN ROOTWORM adults heavy and feeding on silks of corn in Dane County. MEXICAN BEAN BEETLE damaging garden beans in Waukesha County; second county reporting. (Wis. Ins. Bul.).

PENNSYLVANIA - Ten percent of Scotch pine in a plantation in Wyoming County affected by Eucosma gloriola. Several specimens of NORTH-EASTERN SAWYER taken in Wyoming County, Aug. 21. (Pepper). STRAWBERRY WHITEFLY severely attacking strawberries in Indiana County. (Udine). IMPORTED WILLOW LEAF BEETLE infestations heavy on weeping willow in Crawford County and a heavy infestation of an aphid Clavigerus smithiae on willows in Crawford County. Some infestations of CONFUSED FLOUR BEETLE in stored wheat in Clearfield. MOSQUITOES much more abundant than usual in central areas. (Adams).

NEW YORK - ORCHARD MITES increasing where control poor in Orleans County. CORN LEAF APHID unusually abundant in Hudson Valley. (N.Y. Wkly. Rept.).

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Weather continued from p. 886 New York, more than 4 inches at Charles City, Iowa and 3.81 inches at Lakeland, Florida. Hail damage to 2,000 acres of sugar beets was reported north of Worland, Wyoming while in the Fertile-Thief River Falls area of Minnesota on August 28 a severe hail storm resulted in damage to crops estimated at $75,000 and to other property at $200,000.